

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

PIPE-001

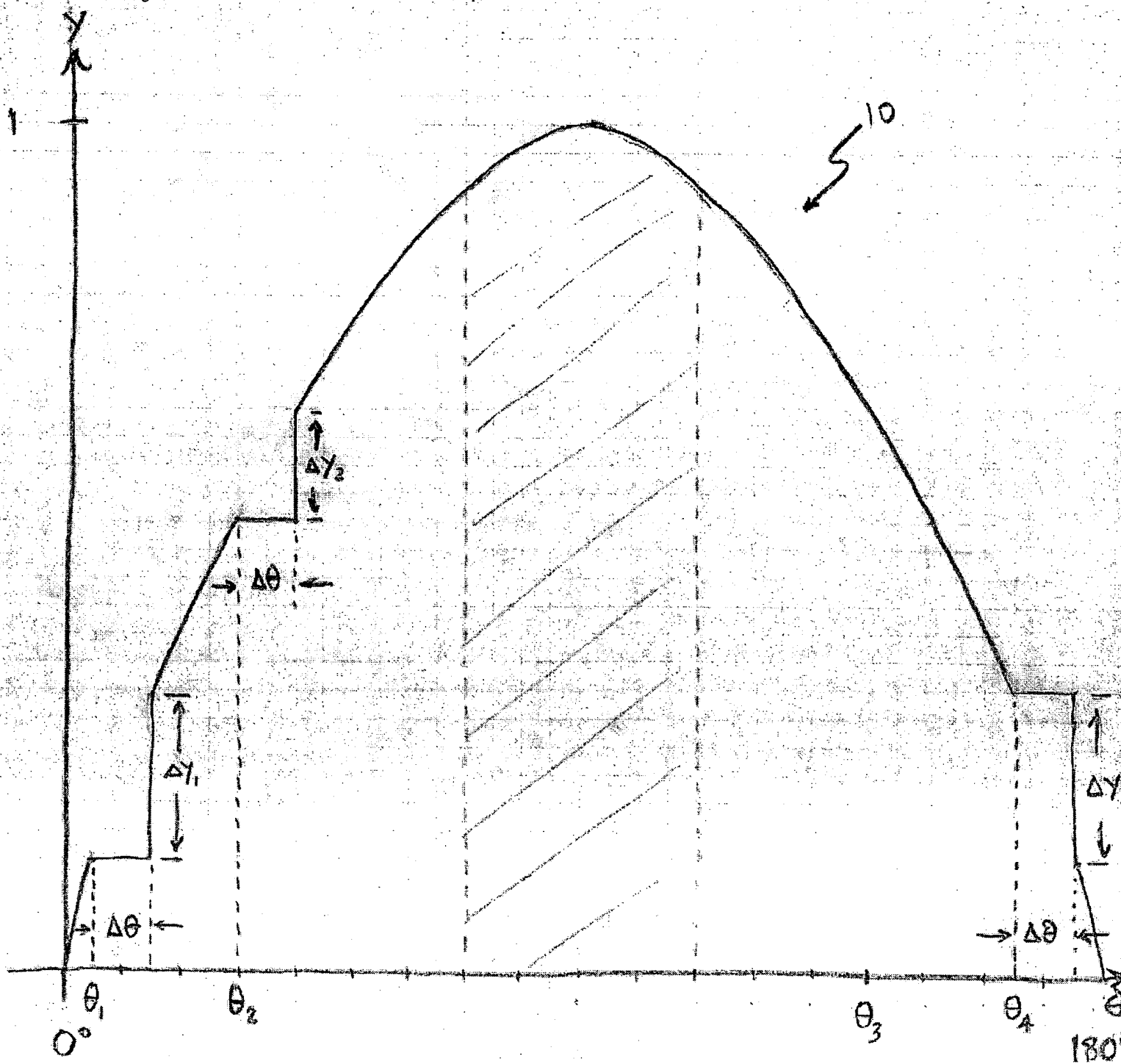
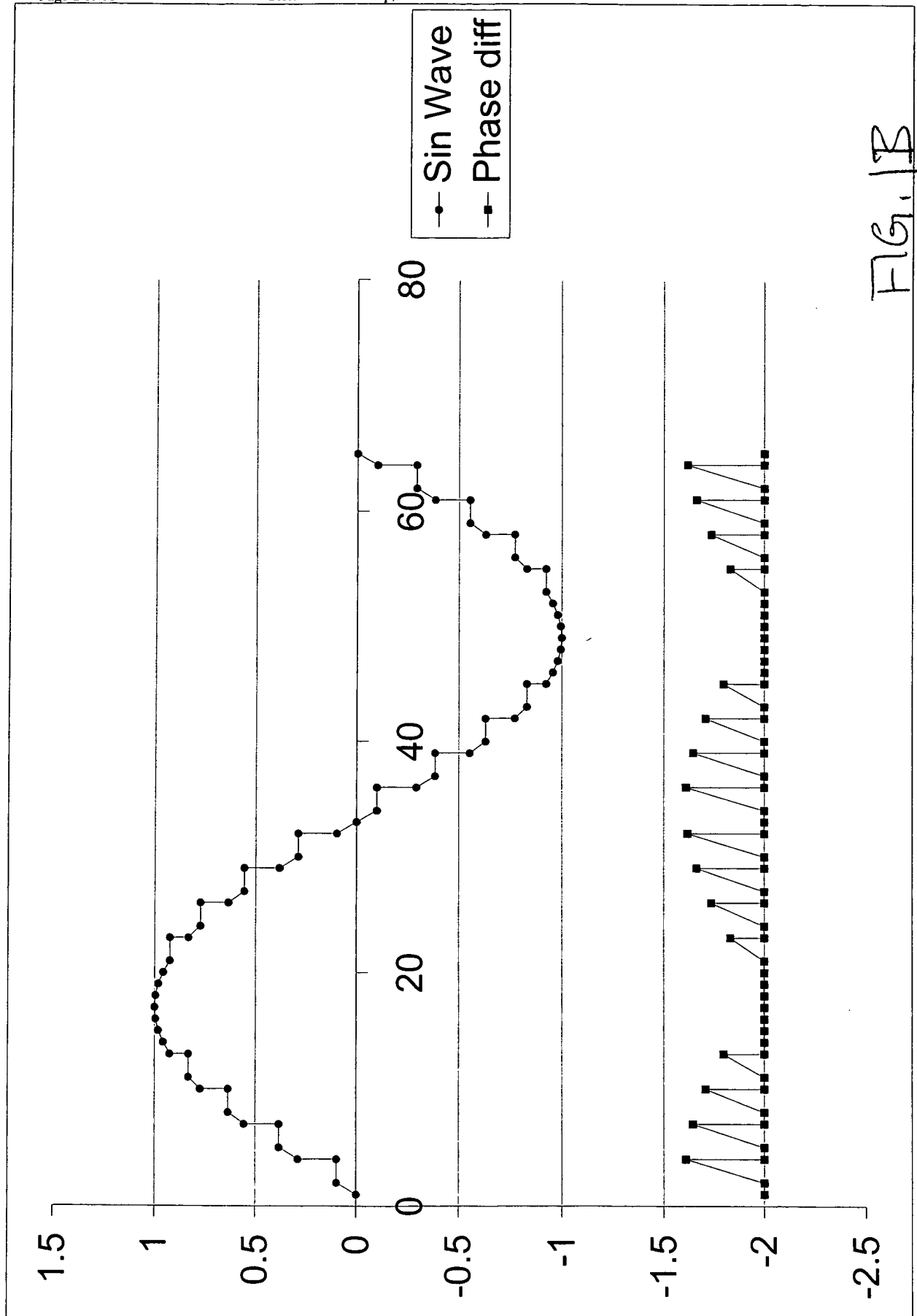


FIG. 1A



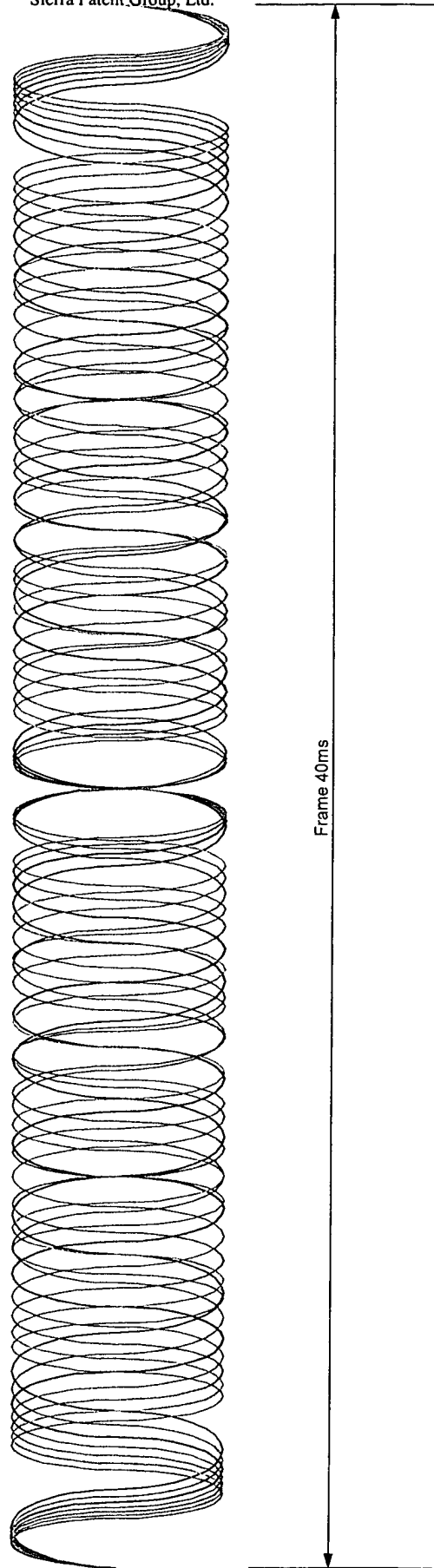
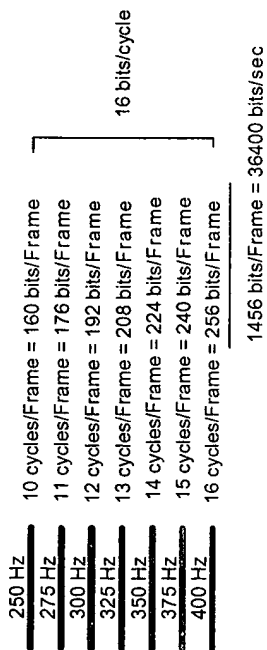


FIG. 2

David Loar  
 3/15/2004

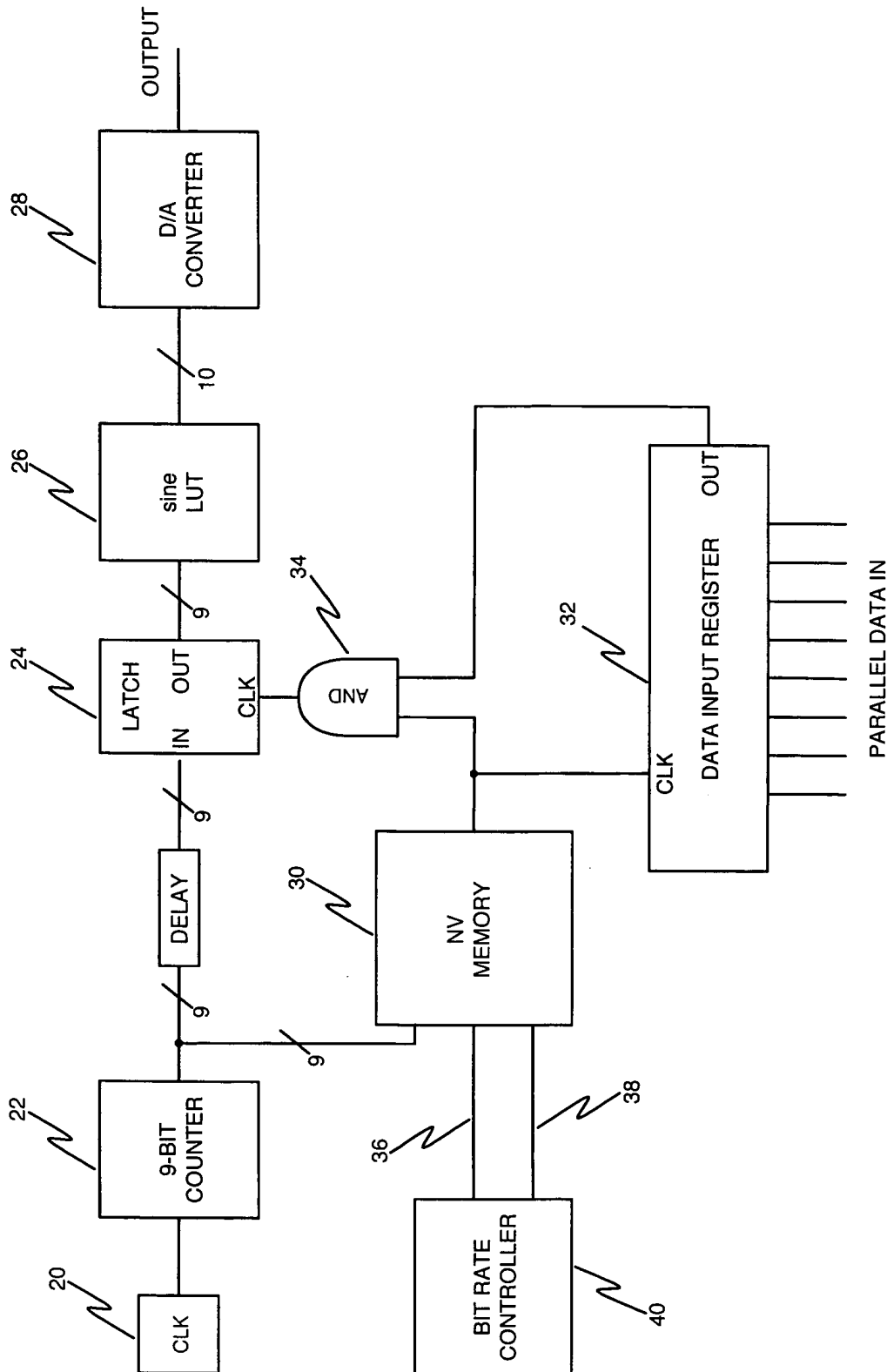


FIGURE 3

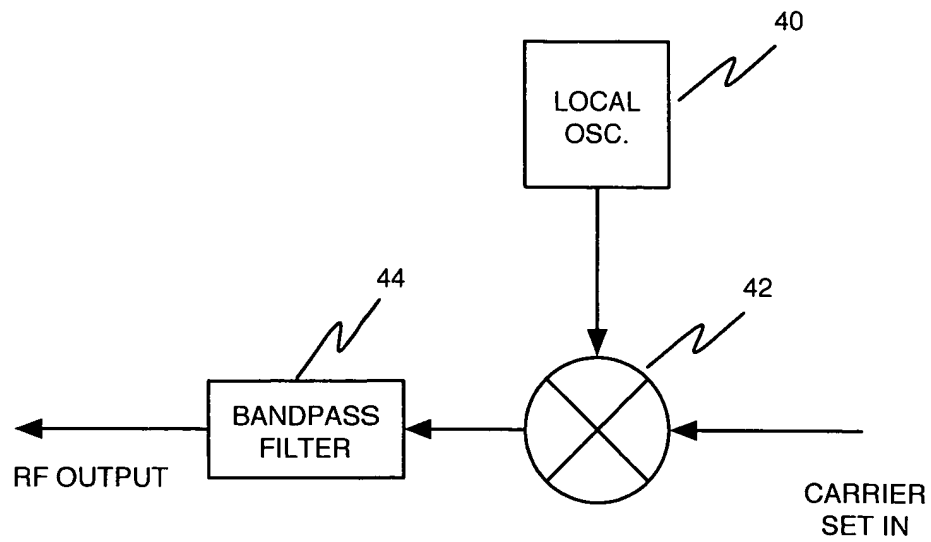


FIGURE 4A

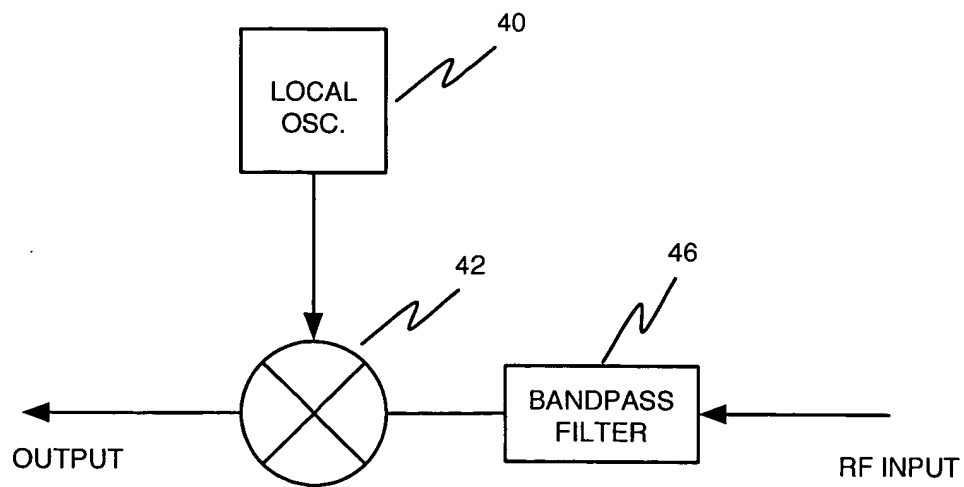


FIGURE 4B

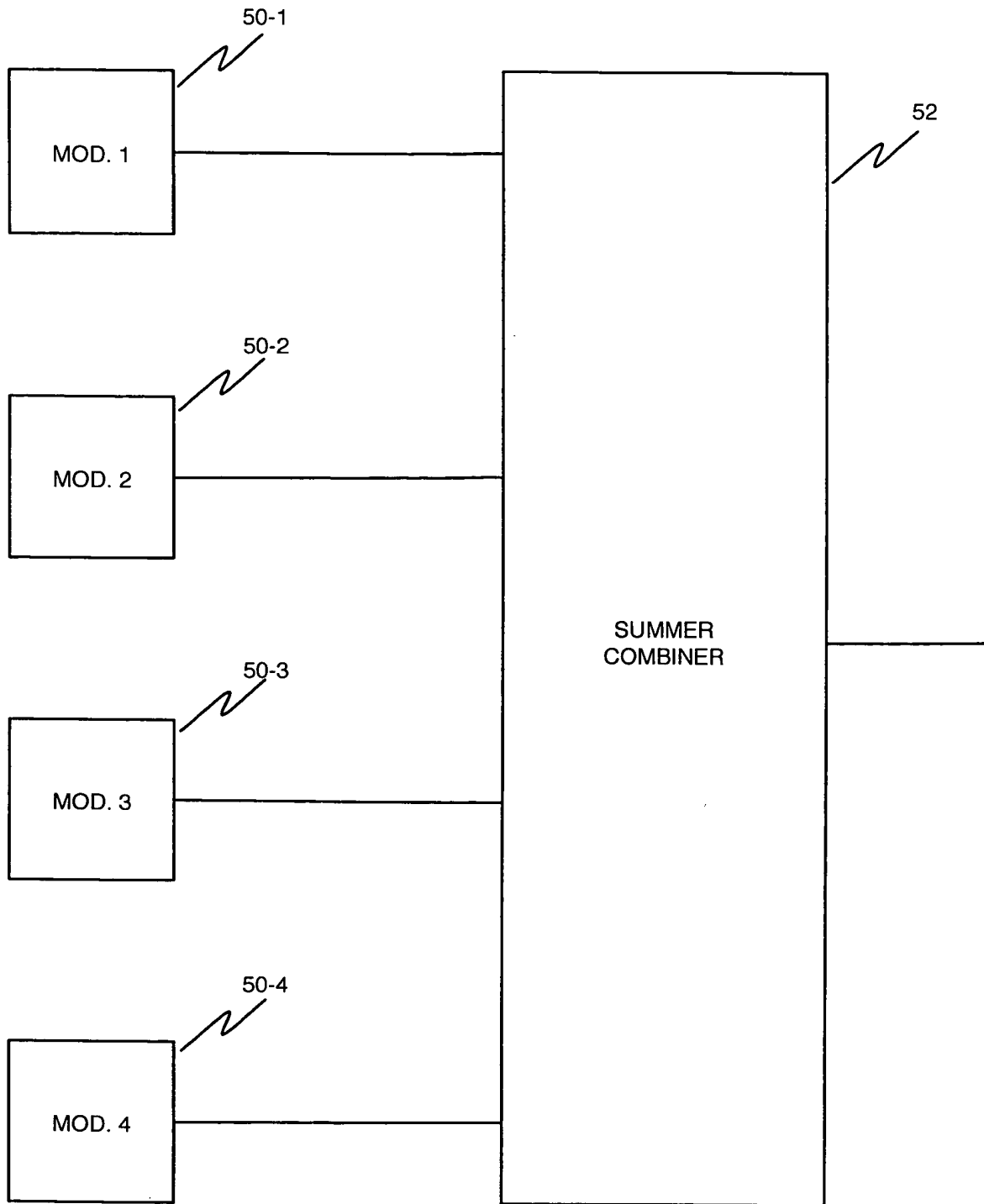
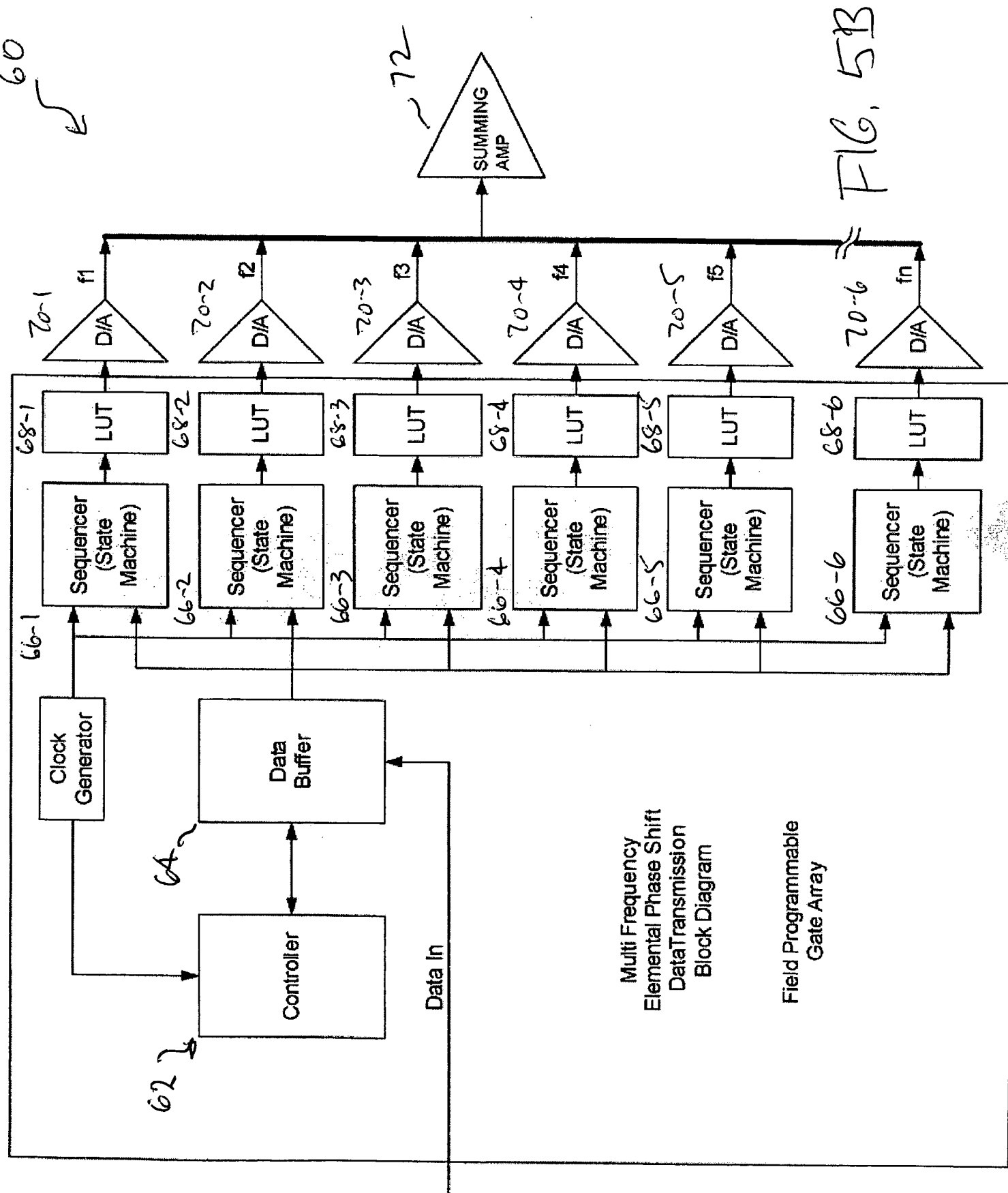


FIGURE 5A





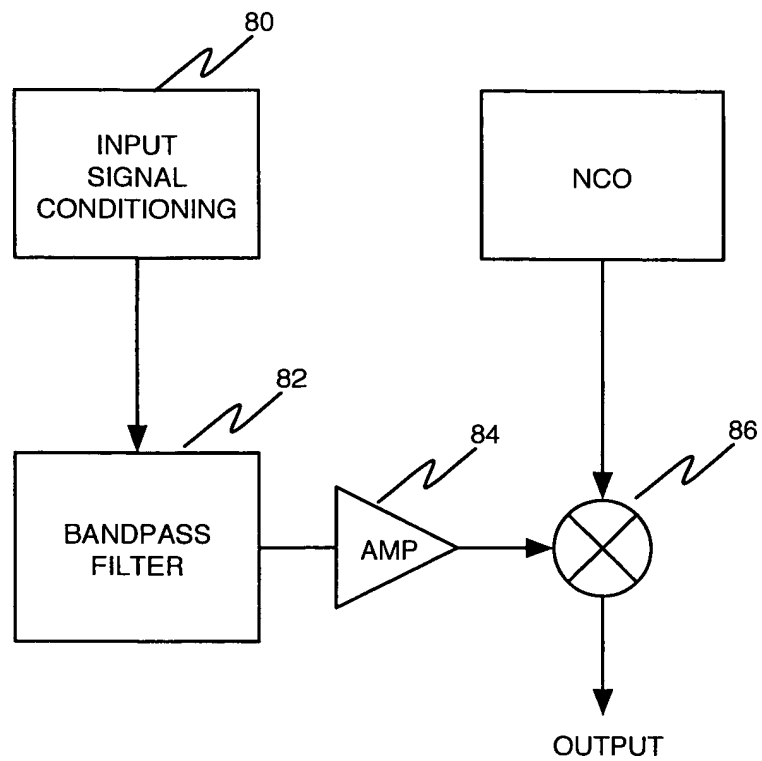


FIGURE 6

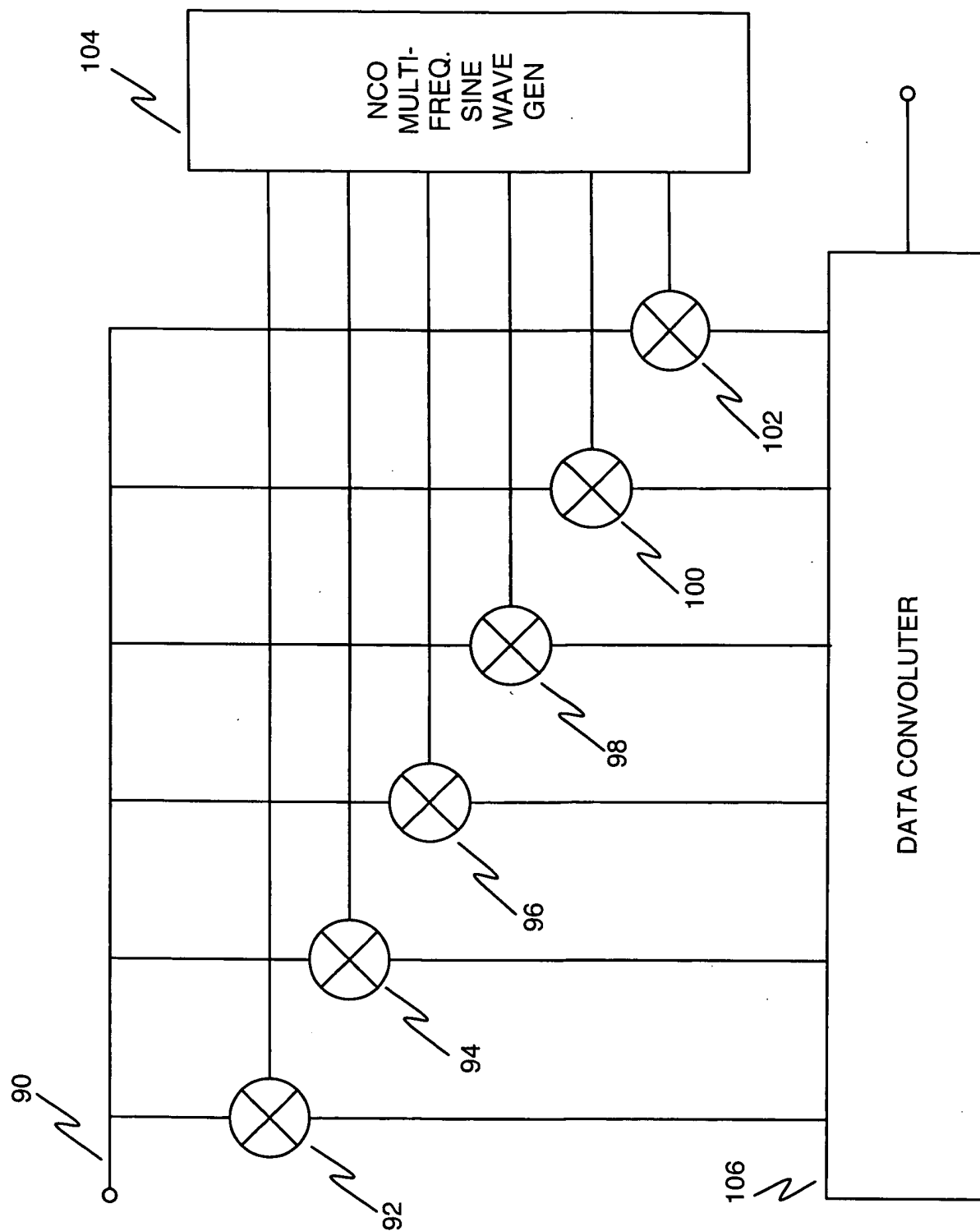


FIGURE 7

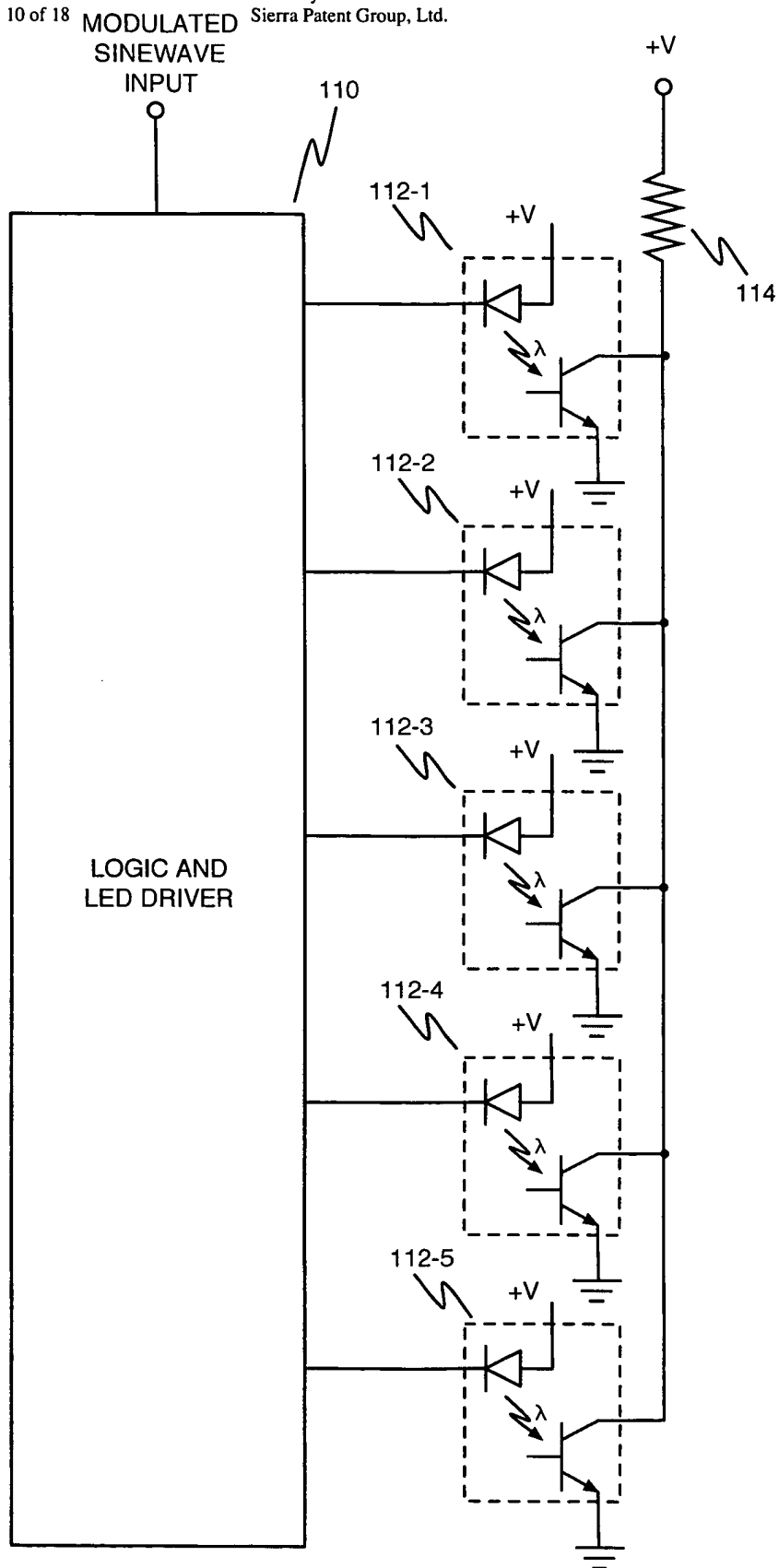


FIGURE 8

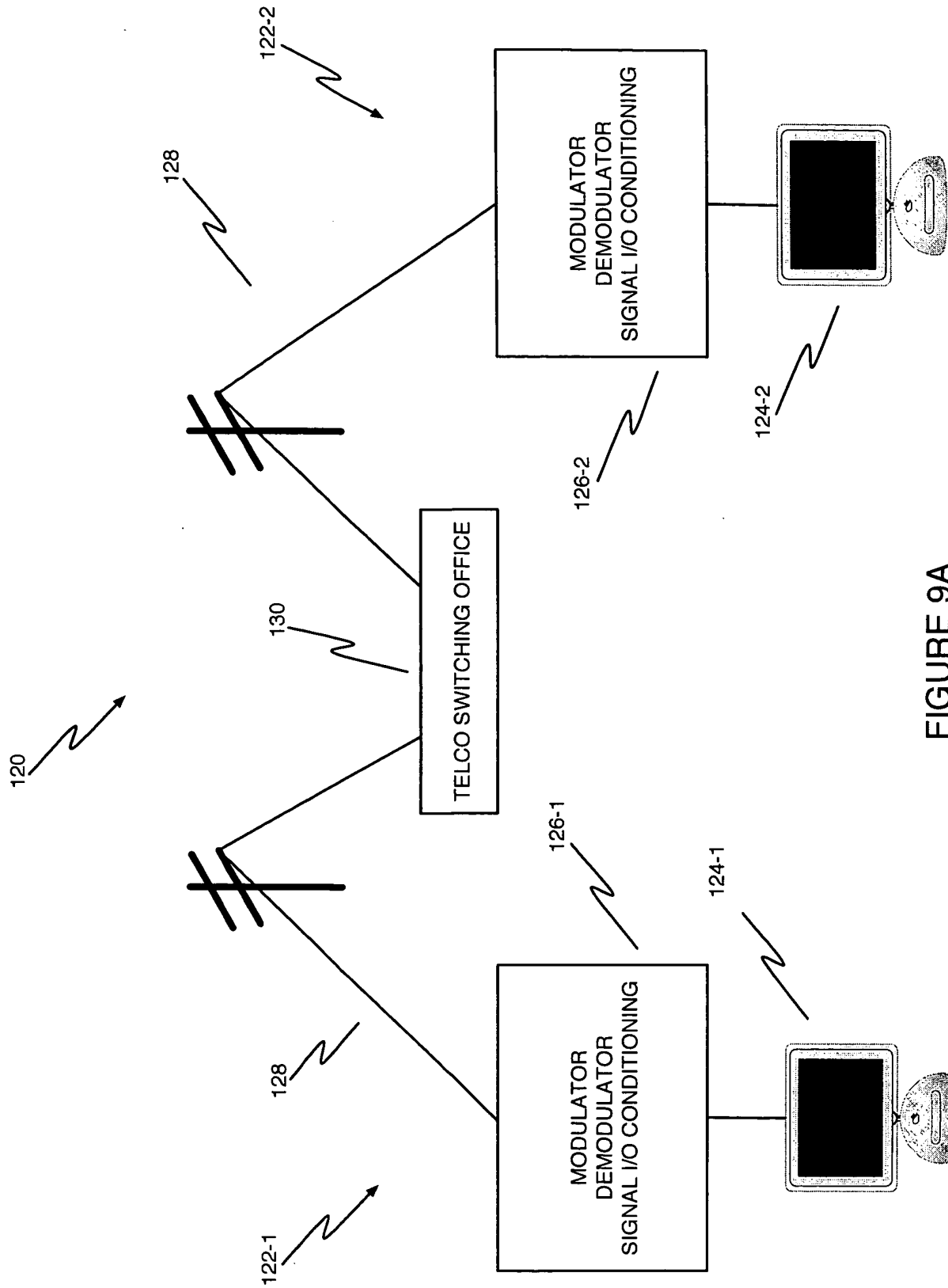
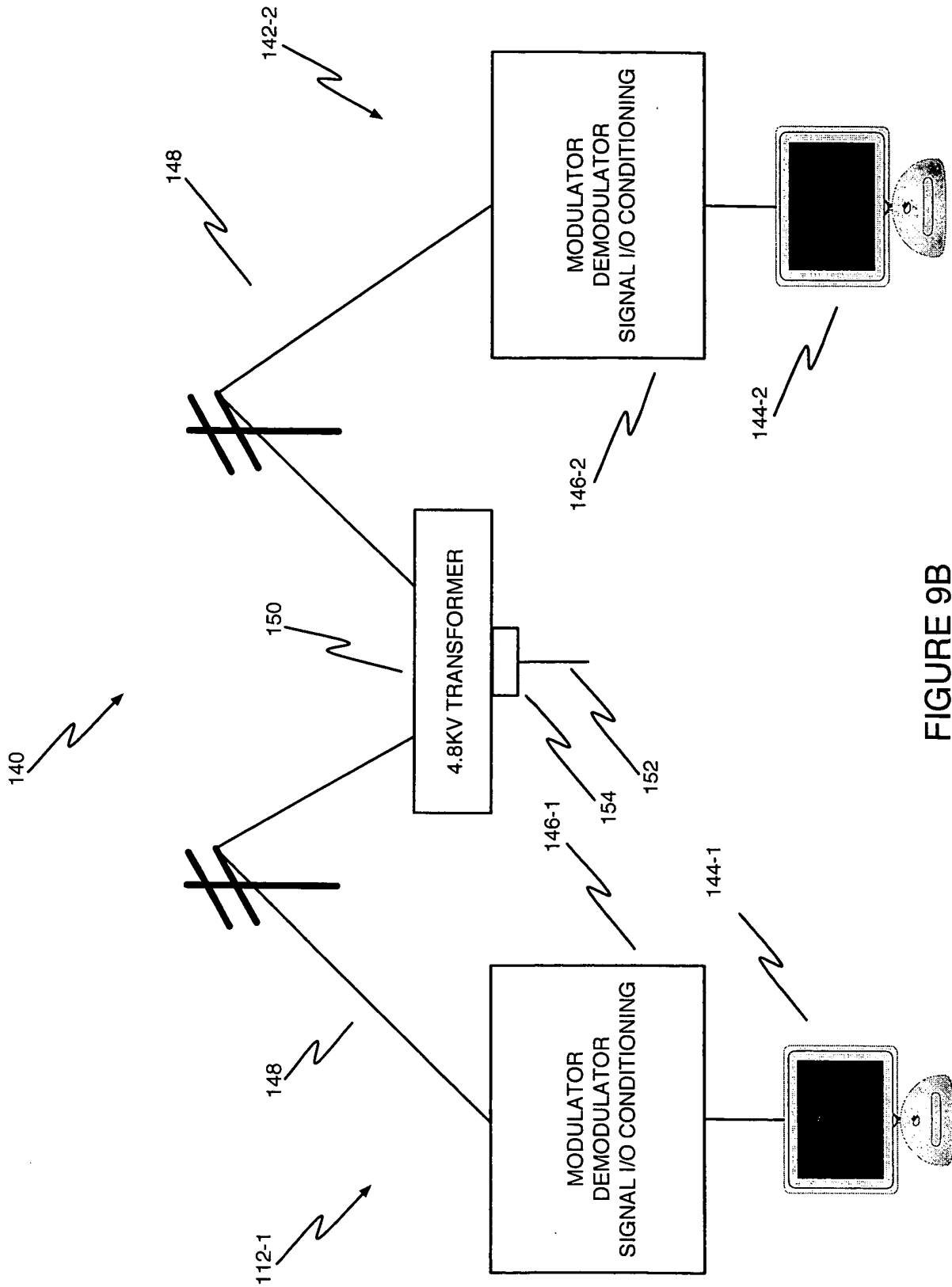
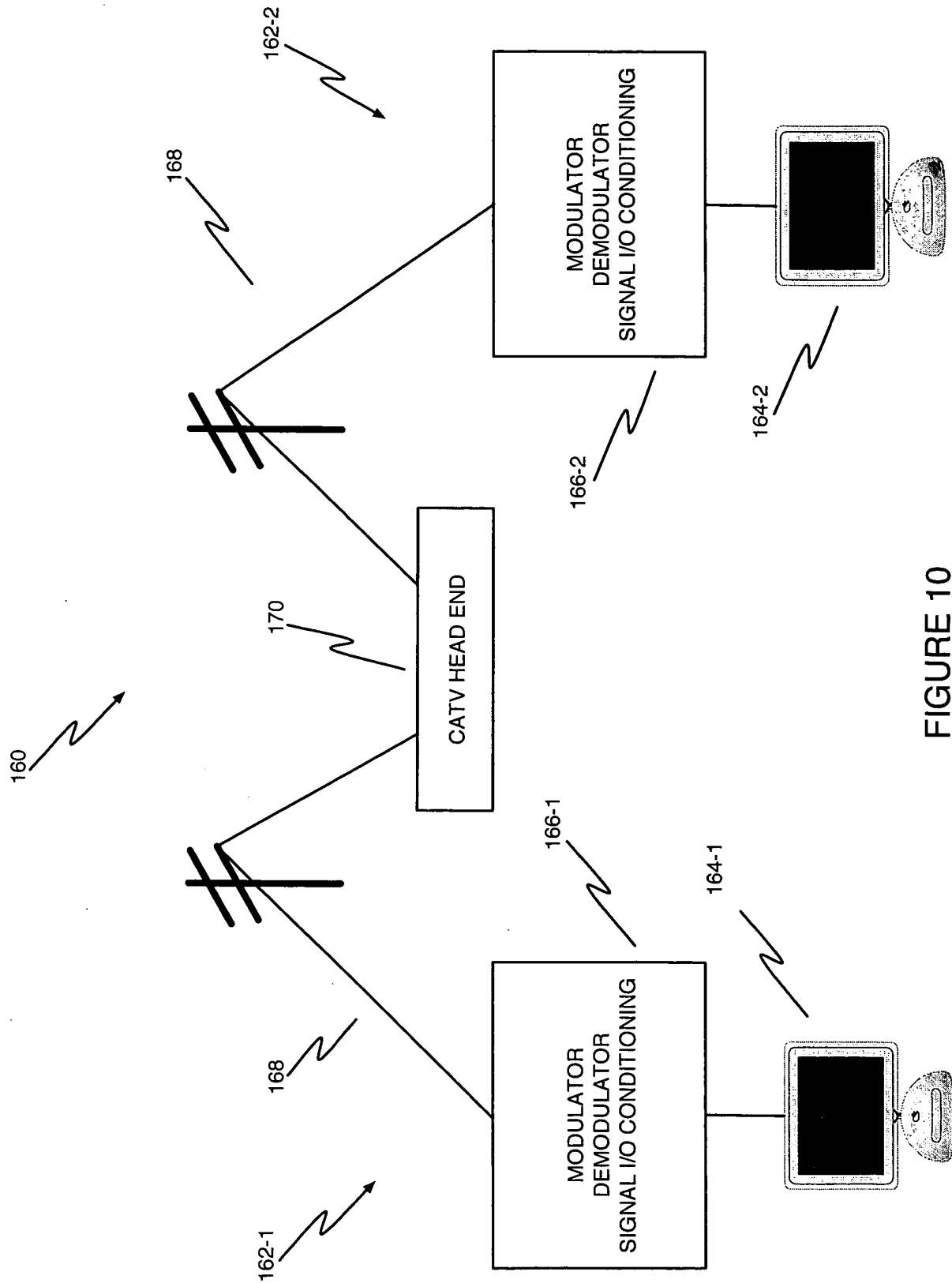


FIGURE 9A





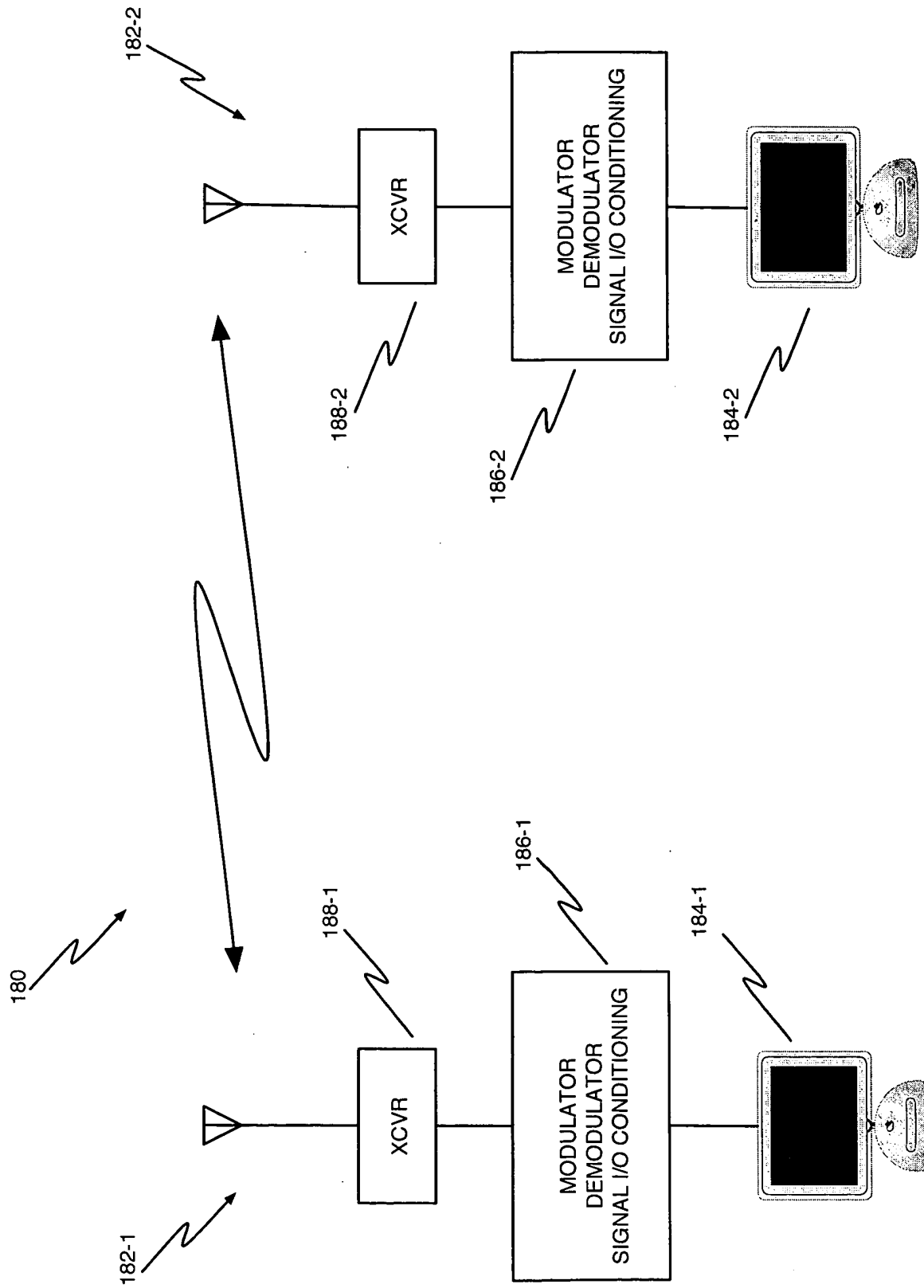


FIGURE 11

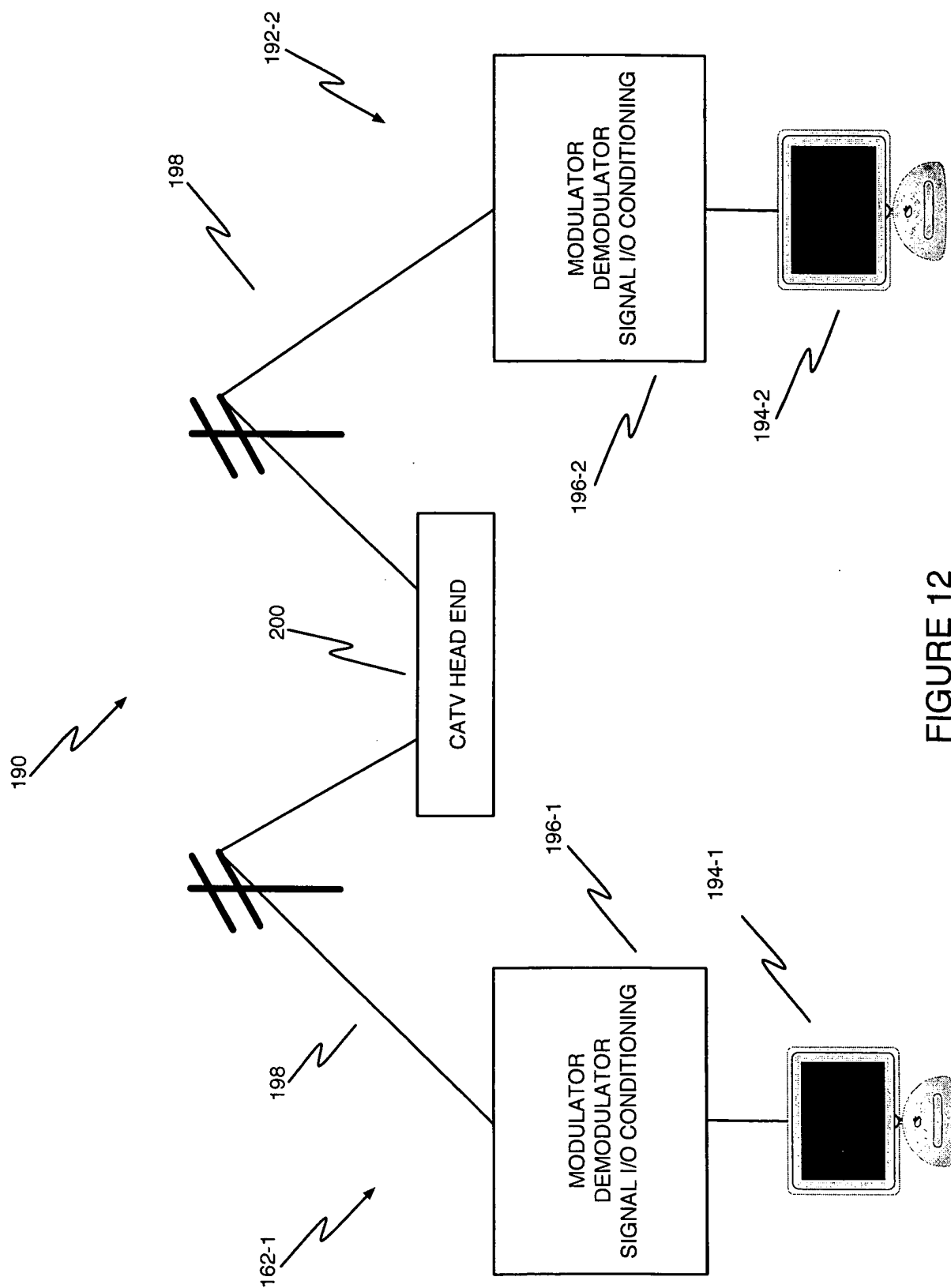


FIGURE 12



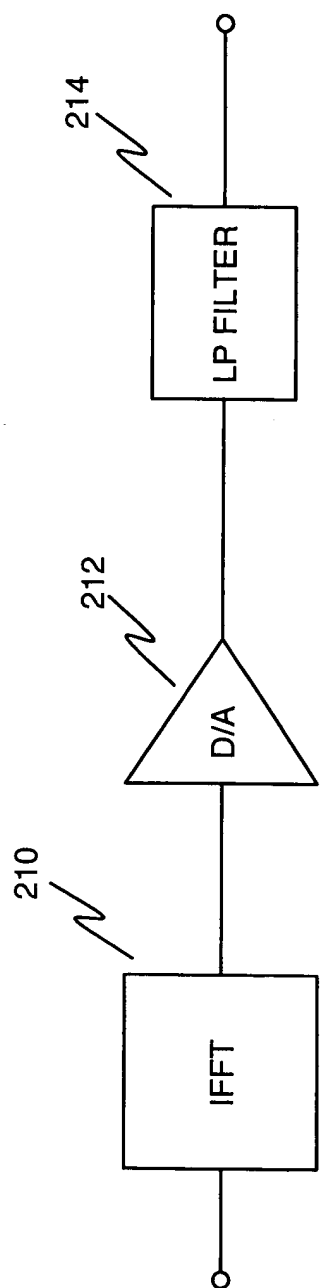


FIGURE 13

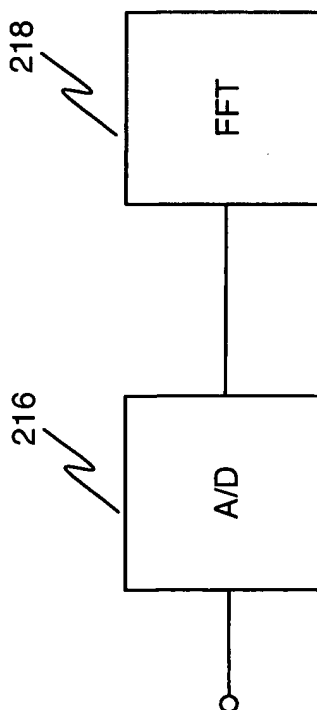


FIGURE 14

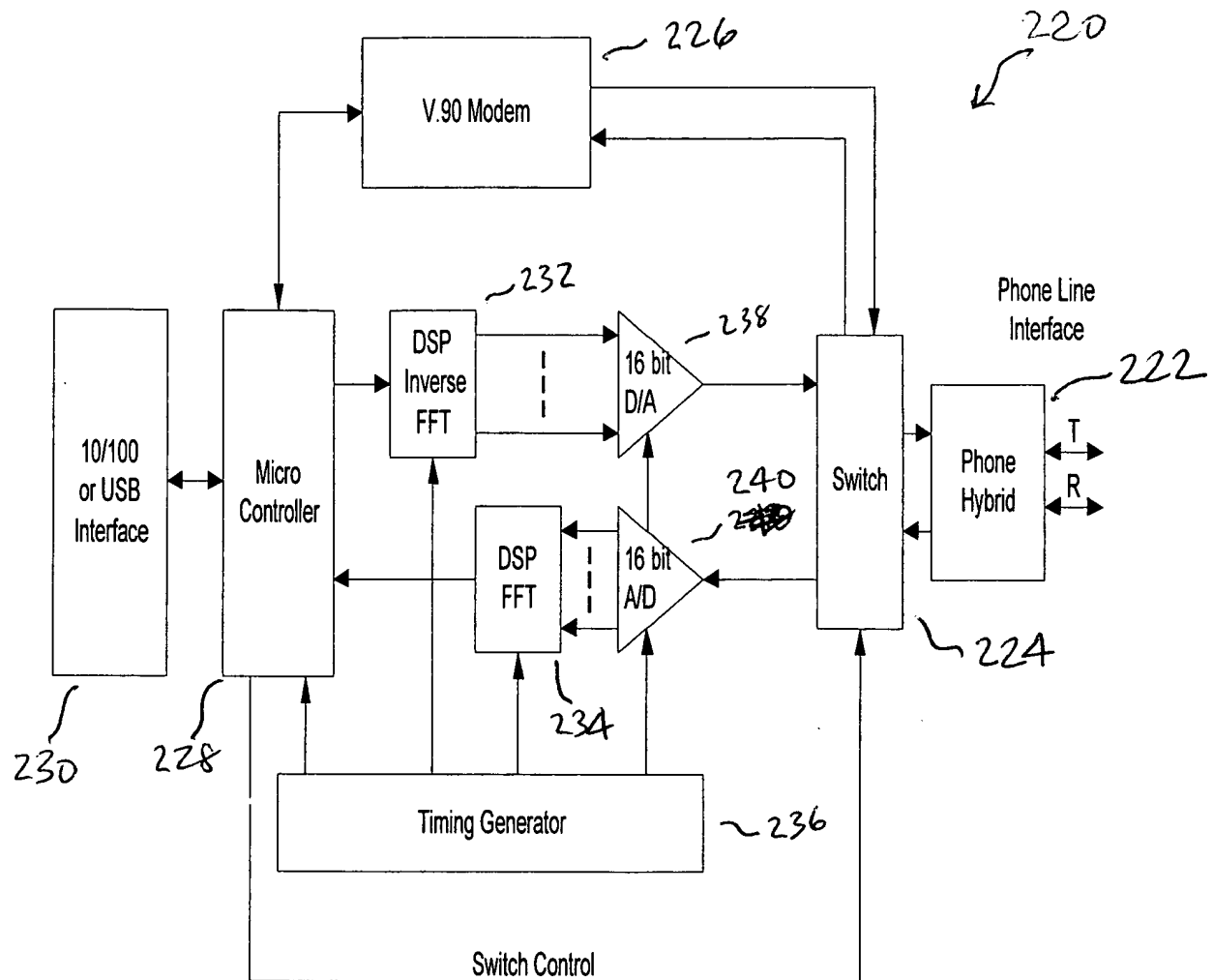
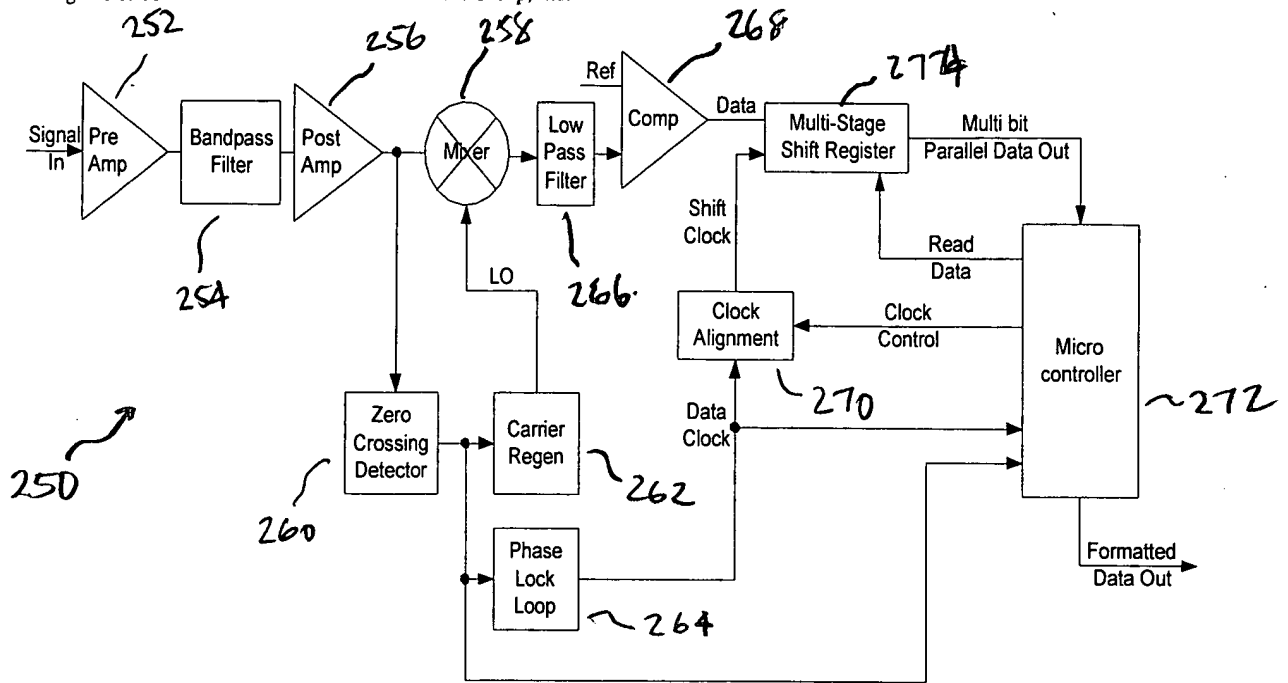


FIG. 15



Multi-bit Sinewave  
 Receiver  
 Block Diagram

FIG. 16